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AUTHOR Hartman, William T.; Haber, Theda R.
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ABSTRACT

An examination of school finance reform and special education finance issues is presented in this paper. It describes a general model of the educational finance system, in which state and federal general and categorical aid combines with district fiscal capacity to determine educational expenditures, which in turn affect educational programs and, in consequence, educational outcomes. School finance reform activities are then reviewed and the general model is used to highlight the aspects of the system at which reform efforts are being targeted and to make explicit the critical assumptions of the reform proposals. Finally, the special education finance subsystem is cast in terms of the educational finance model and the relationship of special education finance to general school finance is investigated. Particular attention is paid to the effects of recent changes in special education laws and to those areas in which additional study is needed. (Author/JEH)

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SCHOOL OF EDUCATION STANFORD UNIVERSITY

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SCHOOL FINANCE REFORM AND SPECIAL EDUCATION

William T. Hartman and Theda R. Haber*

June 1981

*At the time this paper was prepared, William Hartman was a Research Associate at IFG; he is presently an Associate Professor, Division of Educational Policy and Management, College of Education, University of Oregon. Theda Haber is a doctoral student in Administration and Policy Analysis in the School of Education, Stanford University; she is presently employed as an Analyst in the University of California's Financial Analysis Office.

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INSTITUTE FOR RESEARCH ON EDUCATIONAL
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Abstract

In the 1970's a great deal of educational research focused on inequities in school finance systems and on methods for reforming them. School finance reform has also been a major concern of both the courts and state legislatures. The result has been significant changes in the funding levels for education, in the sources of those funds, and in the distribution patterns of school districts receiving funds.

At the same time and using the same judicial and legislative channels, special education has undergone a similar revolution. The educational rights of handicapped children have been established, new instructional and due process procedures have been mandated, and large-scale funding increases have been appropriated. However, school finance reform and special education changes have occurred largely in isolation from one another. Little attention has been paid to the interaction of these two important developments in educational finance or on their potential impact on each other.

This paper presents a conceptual examination of school finance reform and special education finance utilizing a common framework to facilitate comparisons. First, a general model of the educational finance system is described to illustrate the key components of the system and the linkages among them. Next, the principal school finance reform activities are reviewed and the general model is used to highlight the aspects of the system at which reform efforts are being targeted and to make explicit the critical assumptions of the reform proposals. Finally, the special education finance subsystem is cast in terms of the educational finance model and the relationship of special education finance with general school finance is investigated. Particular attention is paid to the effects of recent changes in special education laws and to areas in which additional study is needed.

I. THE EDUCATIONAL FINANCE MODEL

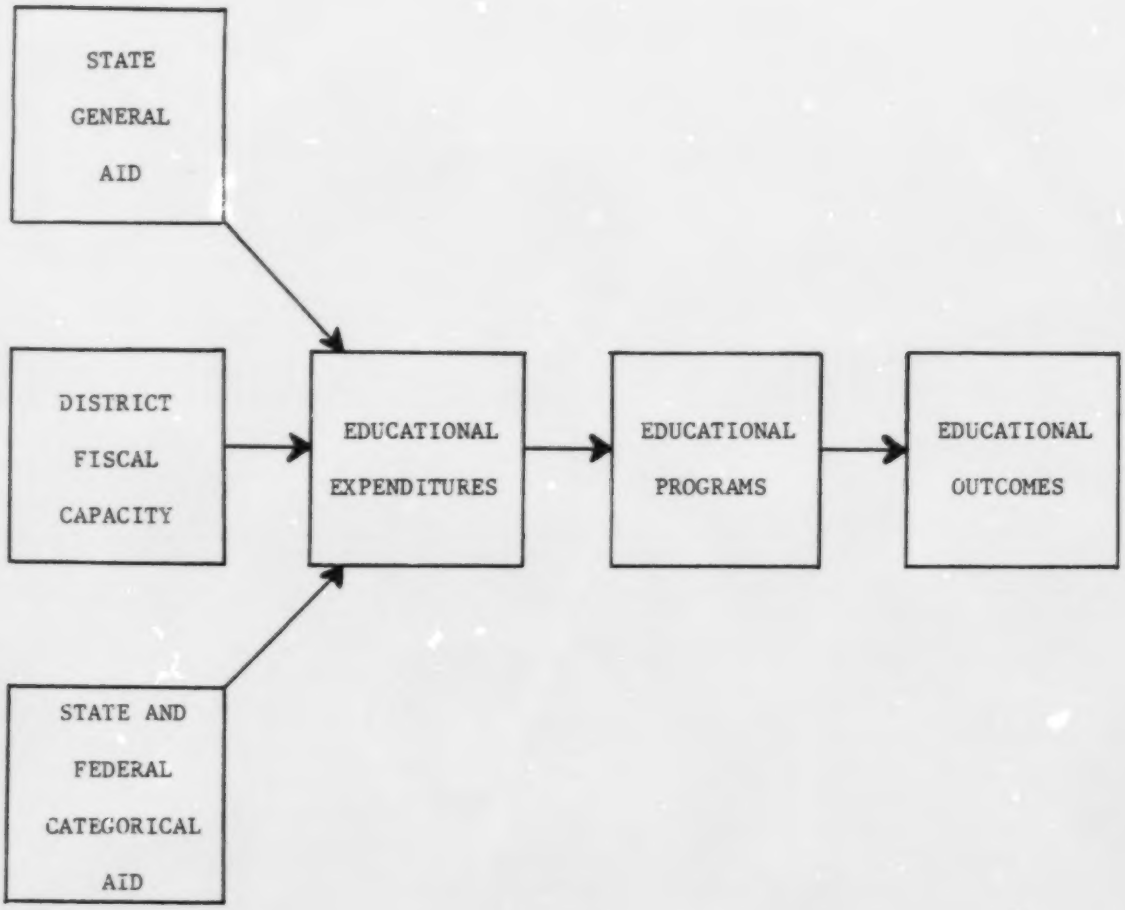
Figure 1 shows a simple flow diagram of an educational finance system, broken down into four stages: 1) the fiscal capacity of a school district, and state and federal revenue sources; 2) the educational expenditures resulting from district, state, and federal revenues; 3) the educational programs offered; and 4) the educational outcomes that result. School funds, which are generated in accordance with the financial ability of the local community and by state and federal contributions, are used to buy educational resources and services so that children learn certain things. Arrows between the boxes in the model indicate that each stage depends to a greater or lesser extent on those to its left. Different proposals for reforming the educational sector direct their efforts at various points within the model and in doing so rely more strongly on one or more of the presumed linkages between boxes. As the application of the model will illustrate, both school finance reform and new special education program and fiscal requirements alter the relationships that exist between the different stages of an educational finance system.

Stages of the Model

District fiscal capacity. Schools have been financed primarily through the property tax levied at the local level. The fiscal capacity of a school district is usually taken to be its property tax base. For comparative purposes this is expressed as the assessed valuation per pupil or the total appraised value of the district's property divided by the number of students served. Fiscal capacity or district "wealth" is thus equated with the property tax base of the community. Recently, there has been some question as to whether property wealth is an adequate measure of a district's

FIGURE 1

A CONCEPTUAL FRAMEWORK FOR EDUCATIONAL FINANCE



ability to support its schools. Other determinants of fiscal capacity which have been suggested are: 1) the community's taxable income;[1] and 2) non-educational public services which compete for the taxpayer's dollar.[2] For instance, the "municipal overburden" argument claims that urban districts which are required to spend more money on fire and police protection, sewage, public transportation, and so forth, have a much smaller capacity to support education in spite of their relatively high property tax base. In any case, whatever is included within a definition of "district fiscal capacity" must be accounted for in a description of the model's first box.

Other revenue sources. Schools also receive money from the state and federal governments. State general aid, which is provided to school districts to support the cost of their operations has few, if any, restrictions on how the funds are used. If general state aid money is distributed through an equalizing formula, it compensates for differences in local wealth by giving low-wealth districts more than those with high-wealth. Through this general equalized aid, the state attempts to alter the relationship which exists between a district's fiscal capacity and its educational expenditures. In addition, some state and federal funds are allocated as categorical aid to meet the needs of special populations and the monies are restricted to these uses.

Educational expenditures. The local portion of educational expenditures is funded primarily through the property tax. The property tax amount is determined by multiplying the tax base by a certain rate. The latter, the district's "effort", is usually expressed as a percentage or millage rate (e.g., two percent or twenty mills). This rate is chosen by the district's voters and it is quite plausible that the rate between districts will vary. This may occur for several reasons. In the first place, individuals value education differently and may want to tax themselves at

a higher rate in order to increase school revenues. In addition, it is easier for certain individuals to assume a larger effort because these taxes take up a smaller portion of their income. Finally, those who are more willing or more able to pay higher taxes often reside in the same community, sometimes with the expressed purpose of enabling their children to go to "better schools". Thus equalizing the fiscal capacity of school districts does not necessarily mean equalizing the local support of education because districts may choose to assume a larger or smaller tax effort.

As with fiscal capacity, it is possible to conceptualize "educational expenditures" in several ways and the breadth of the definition will determine what is included within a description of this second stage of an educational finance system. Aside from revenue from local sources, measures of educational expenditures may or may not include the following: 1) state general aid; 2) state categorical aid; 3) federal impact aid (given to districts with large federal installations, such as military bases); and 4) other federal categorical aid. Measures of expenditures may also be confined to: 1) funds used for instructional purposes; or 2) current operating expenditures (thereby excluding money used for capital outlay and debt service). If the definition of "educational expenditures" used excludes funds because of their source or function, then this must be accounted for in the description of this stage of the model.

Educational programs. Expenditures fund educational programs by paying for the personnel (teachers, aides, administrators, other support staff) and non-personnel (facilities, instructional materials) resources through which various services are offered to the students. School offerings such

as compensatory education, special education, bilingual education, and vocational education may in turn require specific resources (special education teachers, bilingual audiovisual materials) and services (special classes, speech and language instruction). Educational programs for special student populations are generally more expensive and receive additional funding in the form of state and federal categorical aid.

The equity of an educational finance system can also be evaluated in terms of the educational programs offered. For purposes of comparison this can be expressed as the ratio of a particular resource (e.g., teachers) or service (e.g., art classes) to the number of children served. In addition, certain resources (e.g., teachers) can be classified according to presumed measures of their quality (e.g., years of experience, level of schooling completed, test scores) or their function (e.g., special education, bilingual education).[3] Several different definitions of programmatic equity may be used: 1) equivalent ratios of students to resources; 2) all students provided with resources and services of the same quality, regardless of the costs involved; or 3) each student receiving the resources and services which are appropriate to his or her educational needs.

It is presumed that more funds mean better resources. This may have an intuitive logic, but is not necessarily the case. First, it is not always clear who or what the better resources are since the available measures for resources may not relate to their effectiveness. Consequently, school officials cannot or are not sure how to allocate their funds to purchase the optimal mix of resources. Second, similar quality resources cost more or less according to factors over which the schools have no control (e.g., the desirability of an area as a place to live or as a place to teach).

Finally, students with special needs may require more expensive educational services so that a dollar does not buy a similar level of educational programs. It has been suggested that in order to express the buying power of expenditures more fully, revenue should be adjusted both according to a cost-of-education index[4] and according to measures of educational needs.[5]

Educational outcomes. By a process not well understood, educational programs are believed to result in certain educational outcomes. These include the skills, values, attitudes, and behaviors that a child is expected to learn from the school process. Educational outcomes are generally measured by indicators such as achievement test scores, minimum competencies at given grade levels or in different subject areas, or by completion of high school. In addition, longer term outcomes or effects of schooling on "equal life chances" with respect to income, occupational status, and personal satisfication have also been proposed.[6] Again, whatever is included within a conceptualization of "educational outcomes" must be accounted for in the application of the model.

Educational Finance and Equity

In analyzing educational finance, it is important to consider not only the issues that are involved at each of these four stages, but to consider the linkages between them as well. Significant factors which mediate district fiscal capacity and educational expenditures are the local tax rate and revenue from state and federal sources. Interceding between the second and third boxes are the decisions of school officials as to how these funds should be spent as well as demographic and geographic considerations over which schools have no control. Finally, educational programs are separated from educational outcomes by a technology of schooling which has not yet been clearly specified and which may vary in different classroom

situations. These factors account for why two districts similar at one stage of the model may not be alike at the next. For instance, two communities with the same fiscal capacity may not have equivalent per pupil expenditures if their tax efforts vary or if they receive different amounts of state or federal aid. Equal expenditures may not buy the same educational programs if these communities have different educational costs and needs. Even if all children were served with resources and services appropriate to their needs, different outcomes could result if the students responded differently to these educational programs.

Educational equity is a concept which may be applied at any of the four stages of the flow diagram. Its definition will change as a function of where it is applied and according to an underlying philosophy of what "equal educational opportuntiy" means. Equity considerations for district fiscal capacity pertain to whether taxpayers are treated in the same way by the educational finance system. This requires that districts which tax themselves at similar rates have comparable levels of per pupil support. It can also imply that a district's choice of a tax rate is a matter of local preference and is not limited by the community's property wealth, income, or other public service responsibilities. For educational expenditures, equity can mean equal dollars per student or differing expenditures (to meet varying educational needs or costs). With educational programs, equity implies that all children receive resources and services of a similar quality or that each child participates in an educational program appropriate to his or her needs. Finally, equity in educational outcomes may require equal mastery of competency levels, equal test scores, or equal long-term outcomes. Since equity is defined differently for each step, it is important to specify the stage of the school finance system when discussing its equity.

There is no single generic definition of "educational equity"; rather the meaning changes when seen in terms of fiscal capacity, expenditures, educational programs, or educational outcomes. At the base of many of the conceptual problems of school finance, one can find a lack of clarity about which kind of equity is being intended.[7]

Equity within one stage of the model only results in equity in the next if certain assumptions are made about the relationship between those two stages. For instance, equal district fiscal capacity will only result in the same educational expenditures if the same tax effort is levied and state and federal aid levels are similar. Equal expenditures will only buy the same educational programs if no significant disparities exist with respect to the costs of resources and services or the population being served. Equal outcomes would depend on recognizing the educational needs of children and understanding how schooling inputs produce certain outputs so that proper resources and services could be provided. Furthermore, as one intervenes at a level of the process more removed from the equity which one wants to affect, then the assumptions about linkages within the model increase and the likelihood of achieving the desired results decrease.

II. SCHOOL FINANCE REFORM

The way in which schools are financed has been recently attacked in the courts and by legislators and scholars. Reform advocates have argued that school funding should be neutral with respect to the fiscal capacity of the local community. They have generally equated fiscal capacity with district property wealth and have appropriated the "wealth neutrality' concept put forth by Coons, Clune, and Sugarman as their guiding principal: "The quality of a child's schooling shall not be a function of wealth, other

than the wealth of the state as a whole".[8] As so stated, school finance reform was more directed towards tax reform than at modifying the education that a child receives. The reformers called for "equal yield for equal effort" so that two districts who taxed themselves at the same rate would be able to raise the same amount of money for education.

A critical issue within the school finance reform movement is whether the objective of reform is to make funding neutral with respect to local fiscal capacity or to equalize per pupil expenditures. The difference is between ex ante and ex post fiscal neutrality.[9] The ex ante definition requires that all districts have an equal ability to raise the same level of revenues at the same tax rate. Ex post neutrality is satisfied if no high correlation exists between expenditures and district wealth. Both reform objectives are implicated in the landmark school finance reform ruling, Serrano v. Priest. The California State Supreme Court required ex ante neutrality in its 1971 (Serrano I) decision. The trial judge who reheard the case in 1974 (Serrano II) ruled that no significant inter-district per pupil expenditure differences were allowable (apart from those attributable to categorical aid). This requires ex post expenditure neutrality. In 1976, the State Supreme Court affirmed the trial judge's ruling without resolving the confusion between the two decisions.

Ex ante and ex post interpretations of fiscal neutrality lead to different approaches to reforming state school finance. Interdistrict wealth disparities can be eliminated by using state money to supplement local funds so that an equal tax effort generates the same revenue. This method of equalizing fiscal capacity is known as district power equalizing, percentage equalizing, guaranteed tax base, or local guaranteed yield. In these state plans

schedules indicate the levels of per pupil support guaranteed by the state at each tax rate. The district is left the choice of what rate it wishes to levy. If a community's tax effort yields less revenue than the schedule establishes (because of a low fiscal capacity), then the state makes up the difference. If a community's tax effort yields more revenue than the schedule allows, then the state receives the surplus and this money is transferred to low-wealth districts. This use of taxes from high-wealth areas to compensate for the fiscal capacity of low-wealth districts is known as the "recapture" provision. Recapture is not politically popular because it appears that certain districts are paying for educational offerings in other districts. Still with all these plans, the local community decides the level at which it will be taxed, and it is possible for per pupil expenditures to vary across districts.

The most straightforward way of guaranteeing ex post fiscal neutrality or equal educational expenditures is through full state assumption of school finance. In this approach the state mandates the tax rate and expenditure level which all districts use. Full state assumption also employs a form of "recapture" in that the state transfers funds from districts where local revenue exceeds the expenditure level to those where it does not. This school finance approach is politically unpopular because a state-prescribed tax rate and funding level means that education is financed by a state tax with no regard for local preferences. Full state assumption is currently being employed in Hawaii and the District of Columbia. However, in both of these cases there is only one school district for the entire area.[10]

Although reform plans such as district power equalizing (DPE) and full state assumption may respectively exemplify ways in which to enact ex ante and ex post fiscal neutrality, other state funding programs may produce similar effects as long as certain modifications are made. Florida, for

instance, requires a minimum local tax effort and limits optional local add-on's.[11] It supplements this revenue using a variable-level foundation plan in which the funding level is higher than the maximum amount that any district could raise. In effect, Florida has actually implemented a form of full state assumption. Other states use high-level foundation programs. California boosted its level of state support and limited the growth rate on noncategorical revenue from year to year. Property-poor districts were permitted to increase school funds faster than other districts. This would theoretically allow property-poor districts to "level up" their educational expenditures without decreasing the funds of wealthy districts. The equalizing effect of this reform plan was diminished, however, because districts could vote to override the tax rate which corresponded to their revenue limit. Subsequent legislative controls and Proposition 13 effectively eliminated the local overrides. Other reform states are using some form of district power equalizing or a combination of foundation and DPE-type programs. In all, more than half of the states have reformed their school finance systems, principally through high-level foundation plans and/or district power equalizing.[12]

In Serrano I, the California Supreme Court declared the state's educational finance system unconstitutional on grounds that it violated the equal protection clause of the United States and California constitutions. In Rodriguez v. San Antonio (1973), the United States Supreme Court ruled that a state's educational finance system did not have to comply with the federal equal protection clause. The court interpreted "equal educational opportunity" as "equal access to minimally adequate resources" and found that this requirement was satisfied in Texas by the state-imposed minimum expenditure level. This judicial shift from the standard of equal protection

to that of a minimally adequate education could have important ramifications on the different forms of equity involved in the educational finance process. "Adequacy" requires a minimum level of per pupil spending, programs, or outcomes, but allows for variations above that threshold amount. The implicit philosophical justification behind this approach is that the state is only responsible for providing a minimally adequate education, the amount of which is determinant of the level of state support.[13] Local voters may supplement this according to their preferences and financial ability. In later court cases in New Jersey and Washington, the state supreme courts interpreted their state's responsibilities for education as substantially above a minimum level and encompassing an adequate preparation of students for competition in the labor market.

An important impetus for school finance reform arose from a concern that children from different income brackets were receiving educations of different qualities. It was assumed that poor children live in property-poor communities and were systematically being provided with poorer quality education. It has been found that this is not always the case. Poor people do not necessarily live in property-poor districts. Urban centers which have strong tax bases because of commercial and industrial property frequently have high concentrations of poor people. State aid plans which compensate for differences in property wealth may actually benefit suburbs and other districts with relatively low per pupil assessed valuations.

Some reformers have argued that the property tax base may not indicate a district's ability to support its schools. Property wealth may not be a good measure of fiscal capacity because of problems inherent in the property tax. In the first place, the property tax is generally believed to be regressive; it places a larger burden on poor people.[14] Secondly,

property is not always assessed uniformly throughout a state. Thirdly, high-value residential property tends to be undervalued. In addition, a community's ability to support its schools is also affected by added educational and non-educational costs over which it has no control. Cities tend to have higher proportions of children who require more expensive educational services. They also face higher costs for personnel and other resources than do other types of districts. Several states (Connecticut, Kansas, Pennsylvania, Maryland, Missouri, Virginia, and Rhode Island) now use some combination of property wealth and income in determining the fiscal capacity of districts.[15] The recent court decision in New York (Levittown v. Nyquist, 1978) acknowledged the discriminatory nature of municipal overburden and additional educational needs and costs on urban areas. This court case may also provide the impetus for more comprehensive definitions of fiscal capacity.

Several states have also been exploring ways in which to incorporate added educational needs and costs in their support formulas. This can be done by weighting pupils differently according to the costs of the resources and services they receive. Florida has the most comprehensive weighting system. It uses 26 different programmatic weights, assigning a minimum weight of 1.0 to children in grades 4-9 and a maximum weight of 15.0 to those who are in hospital or homebound programs. Florida also adjusts its distribution of state funds by a cost-of-living index according to the county within which the child resides. It is currently considering replacing this cost-of-living index with a cost-of-education index in which differing costs of buying educational resources of the same quality are represented.

With this background, school finance reform concepts and efforts can now be recast in terms of the general model of educational finance. This

framework will be used to show how reform proposals differ with regard to which of the first two stages in the model they focus on and how they define the linkage between fiscal capacity and expenditures. The ways in which the school finance reform movement intervenes within the first half of the model but justifies these changes on expected results in the model's second half will also be indicated.

The recent school finance reform efforts began with the recognition of the importance of district fiscal capacity in financing schools. The role of fiscal capacity in school funding was contested on constitutional grounds in that it discriminated against children on the basis of place of residence. Reformers argued that this violated the equal protection clause of the U.S. Constitution and both the equal protection and education clauses of the State Constitions. A dissatisfaction with the property tax and expenditure disparities had turned into a constitutional issue in which legislators were forced to consider the relationship between fiscal capacity and school expenditures and to change state finance plans so that the former did not determine the latter.

Before reform, school funding had been significantly determined by a district's fiscal capacity. The linkage between the first two stages in the educational finance model, district fiscal capacity and educational expenditures, was strong. Reformers argued that school funding should not be a function of community wealth; they sought to eliminate the effect of fiscal capacity on expenditures by making school finance wealth-neutral. It should be noted that although reformers were concerned with the equity of finance systems, the wealth-neutrality principle put forth by Coons, Clune, and Sugarman does not offer a definition of what equity is. The wealth neutrality concept is a negative principle which only says what a finance system should not do, namely it should not let educational

expenditures be determined by district fiscal capacity. It should eliminate the direct relationship between the first and second stages of the educational finance model. Since the first Serrano decision only required ex ante wealth-neutrality, any funding plan which is wealth-neutral would satisfy the mandates of Serrano I.

District power equalizing, by definition, neutralizes the linkage between fiscal capacity and expenditures. The local community still chooses the tax rate and level of per pupil expenditures, but, in all cases, the same effort will yield the same support. DPE results in per pupil expenditure disparities as a consequence of local decisions, a perfectly permissable and acceptable situation under the objective of equity of fiscal capacity. Thus, the ex ante neutrality established by DPE plans does not imply ex post neutrality; neutralizing the effect of fiscal capacity on school funding does not necessarily result in equal educational expenditures. The "recapture" clause provides the disincentive for districts to assume a higher tax effort than necessary but still does not equalize expenditures. Although district power equalizing does satisfy (with recapture) ex ante fiscal neutrality and does make educational finance equitable with respect to fiscal capacity, it does not insure ex post neutrality or equal expenditures per student.

Full state assumption intervenes at the second stage of the educational finance model and satisfies the mandate of the Serrano II decision in regards to equal expenditures. Under this approach, the state exercises the power to make decisions about how much should be spent on education and what the local effort should be. The advantage of full state assumption is that the financial approach guarantees equal expenditures across districts. Critics of full state assumption argue that this eliminates local control of education and hinders programmatic diversity and experimentation.

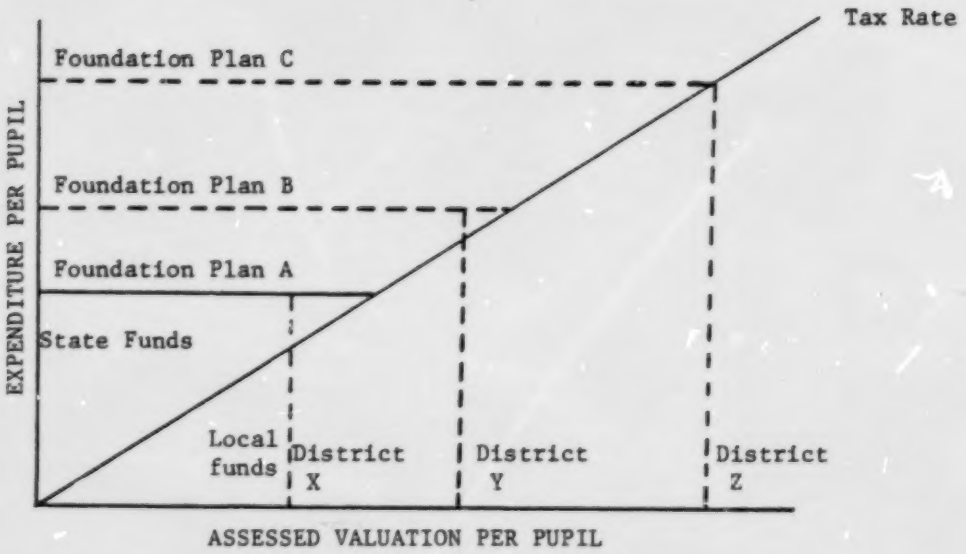
A more common approach to improving the equalization of per pupil support across districts is the foundation plan. With the basic foundation plan, the state guarantees each district the funds required to bring it up to a state-determined level of per pupil support (foundation level) when the district uses a state-mandated tax rate. If the foundation level were high enough or if the state designates a maximum local effort so that all districts receive state aid, then this would be in effect a modified form of full state assumption. In these situations, the state effectively chooses the per pupil level of support and the local tax rate.

In fact full state assumption is the limiting case of the foundation plan (see Figure 2). High-level foundation plans approximate, but do not result in, full state assumption. Certain districts may still levy a tax rate great enough so that their revenues exceed the foundation level. Per pupil expenditures will not be equalized. Low-level foundation plans exacerbate expenditure disparities between districts. They could mean that little or no state aid is required to have all districts reach the foundation level (which could be below the costs of the lowest spending district). The result would be to increase the school finance system's reliance on local fiscal capacity.

Full state assumption and foundation plans intervene at the level of educational expenditures and work backwards to neutralize the effects of differences in fiscal capacity. Two different factors mediate fiscal capacity and educational expenditures: the local tax rate and revenue from state and federal sources. Full state assumption equalizes expenditures by replacing the local tax rate with a statewide tax rate and by using state money to compensate for differences in local yield. (State and federal categorical aid are not included within these measurements of

FIGURE 2

DIFFERENT LEVEL FOUNDATION PLANS



With Foundation Plan A only District X receives state aid, but wealthier districts Y and Z are able to exceed the foundation guarantee (at the state mandated tax rate). A higher level foundation (Foundation Plan B) encompasses more districts (District Y) but still allows for high expenditure variations (District Z). If the foundation level is equal to or greater than the locally generated revenue of the wealthiest district (Foundation Plan C), then expenditures will be equalized. This plan may only require manipulating the foundation level so that no district can tax itself at a rate high enough to exceed it or it may mean that the state mandates both the tax rate (or a maximum local effort) and the level of per pupil support. In either case, Foundation Plan C is a form of full state assumption.

expenditure equity.) Fiscal capacity is also neutralized by eliminating local choice in regards to tax rates. By controlling tax rates, instead of just providing incentives for limited local effort (through the "recapture clause"), full state assumption insures that rates will not vary according to community wealth or income.

The choice between reform approaches involves a value question about what kind of equity a school finance system should posess as well as a practical question about what stage in the process is politically most feasible to change. District power equalizing retains local control of educational finance decision-making and allows for local variation of effort and per pupil support. It achieves taxpayer equity with regard to fiscal capacity but has no necessary effect on expenditure equity considerations. Full state assumption (or high-level foundation plans with appropriate stipulations) guarantees that equal dollars be spent on all students (aside from categorical aid) but achieves uniformity at the expense of local determination. Full state assumption achieves both student equity with regard to equal expenditures (through uniform state-established expenditure levels) and taxpayer equity (through imposition of a uniform statewide tax rate). It intervenes at the second stage of the educational finance process and effectively eliminates the localized effects of differences in districts' fiscal capacity on expenditure levels and tax rates. From a political standpoint, district power equalizing and full state assumption may be difficult to implement because certain districts would lose money. A high-level foundation plan, in which all districts receive some state aid, requires that the state increase its expenditures for education. This was more possible when the school finance reform movement began (during a time of state surplus and demographic growth) than now in a period of fiscal constraint. Thus the choice between state finance plans is implicitly a decision about

whether taxpayer equity, student equity, or local control issues warrant more attention and which alternative is politically most possible to enact.

The overriding aim of school finance reform has been to change the way in which schools are supported. This can be done by neutralizing the state finance system with respect to local fiscal capacity or by equalizing expenditures across the state. As such, this movement is one of financial rather than educational reform. Yet while changes in educational finance could be justified on grounds that the existing systems place a heavier burden on certain taxpayers or do not guarantee "equal yield for equal effort" or that children are discriminated against in school funding according to their place of residence, reformers have often argued for reform on the basis of expected educational results. They have justified modifications of the first half of the model because of presumed outcomes at the end.

This is evident in the key school finance reform court cases. Even when they questioned whether a direct relationship exists between the amount spent on education and the quality of schooling received (the so-called "cost-quality issue"), the courts continued to consider the effects of expenditure disparities on schooling.[16] Inasmuch as expenditure disparities were evidence of inequities within an educational system, more equal funding per student was an indicator of more equal educational opportunities among students. This approach treats school finance reform as an educational issue where it is actually more a matter of taxpayer and expenditure equity. The educational finance model shows the connections among district fiscal capacity, state and federal revenues, educational expenditures, schooling received, and educational outcomes, and in doing so relates school finance to educational matters. However, equity at one stage of the model does not necessarily imply equity in the next. An indicator of quality at one level (e.g., dollars per student) cannot necessarily be used as a reliable

proxy to measure the quality of a subsequent stage (e.g., educational programs or outcomes). While educational cost and quality are linked, it cannot be assumed that a direct relationship exists between the level of funding, the programs provided, and the outcomes which result. Consequently, if the court's intent is to equalize expenditures within a state, then this need not be justified or evaluated on its presumed educational effects.

This implication of school finance reform in educational issues may have been increased with the shift in court cases from equal protection to minimum educational adequacy. It has been pointed out that minimum educational adequacy seems to imply a qualifying phrase, "minimally adequate for what?"[17] The "for what" are the educational outcomes that the schooling process is supposed to produce. In the Rodriguez case, this was taken to be the skills necessary for citizenship. In the Robinson v. Cahill ruling (1973) in New Jersey, which also used the standard minimum adequacy, this included preparation for the labor market as well. In both cases looking at education in terms of adequacy involved educational outcomes in the evaluation of equity with respect to fiscal capacity and to expenditures. Again, while it is conceptually correct to relate the reform of district fiscal capacity and educational expenditures to educational outcomes, this force-fit bonding of educational finance and educational results assumes direct linkages within the model and decreases the possibility that school finance reform will have its desired effect.

Coons, Clune, and Sugarman's wealth-neutrality principle measures the quality of schooling by per pupil expenditures rather than by schooling outcomes. Coons, Clune and Sugarman acknowledge that a positive relationship probably does exist between the dollars spent and the quality of

resources and services received--as well as the quality of educational outcomes accrued--but argue that social scientists are far from being able to describe these relationships in a judicially manageable way. The wealth-neutrality principle says that quality (as evidenced by expenditures) should not be determined by fiscal capacity; school quality should be a function of district choice rather than district wealth. In other words, the point of concern is not the equity of educational expenditures (equal dollars per pupil), but the relationship between wealth and school funding. Even if they seem to imply that they are proposing a way of providing all children with an education of equal quality (as measured by expenditures), their discussion of equity is confined to fiscal capacity and taxpayer equity. Their proposal, district power equalizing, does preserve local choice. It does not necessarily affect educational quality.

In summary, school finance reform is basically concerned with the first two stages of the educational finance model. It focuses on issues of equity for taxpayers as well as equal dollars for students. Changes in the way in which schools are funded may of course have repercussions for the schooling received, but reform of school finance systems can be justified and evaluated without necessarily implicating matters of educational quality. Certain populations of students, however, have different and greater educational needs and costs than others. What is equitable for the general group of students, in terms of expenditures, programs or outcomes, may be highly inequitable for others. Using the general educational finance model, the paper next investigates whether school finance reform, because of its focus on fiscal capacity and expenditures, conflicts with the objectives, equity considerations, and fiscal outcomes of categorical funding for handicapped students.

III. SPECIAL EDUCATION FUNDING

In the studies and deliberations on school finance, funding for special education (and other categorical programs such as vocational education, bilingual education, compensatory education) has generally been excluded from consideration.[18] Handicapped students have been treated as a separate population with different needs and different programs. The result is that little attention has been paid to the effects of special education funding on school finance reform efforts and vice versa. Rather, the implicit assumption appears to be that special education finance (and other categorical programs, as well) is a self-contained system having little, if any, impact on school finance reform.

This assumption may not hold for two main reasons. First, there has been a dramatic increase in the funding provided for special education over the past few years. Estimates of expenditures for the education of handicapped children are shown below.[19]

1972-73	$2.610 billion
1976-77	$4.485 billion
1980-81	$9.031 billion (required if all school age handicapped children were served)

The rapid growth of special education costs has required substantial increases in the level of support from local, state, and federal sources. So it is possible that the sheer magnitude of the funds now flowing into special education has altered the past relationships or lack of them between special and regular education financing.

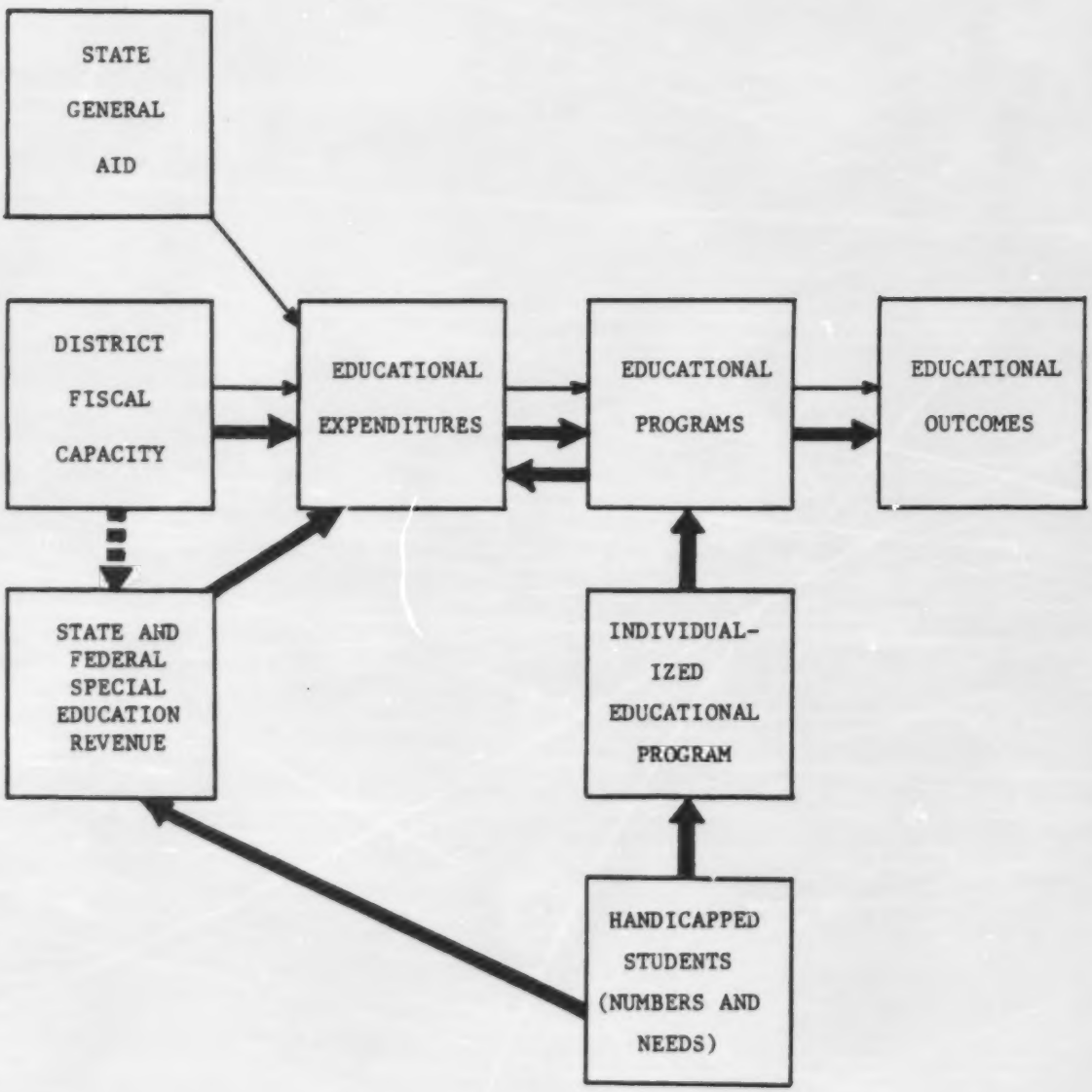
Second, to the extent the state and federal categorical revenues fall short of the additional costs of educating greater numbers of handicapped students in special education programs, local funds may be required to make up the deficit. Under this situation, relatively rich districts would find it easier to raise additional funds for special education and relatively poorer districts may be deterred from offering costly programs. As a result, the education that handicapped children receive may be influenced by the fiscal ability of the local school district.

As a first step in this conceptual investigation, the diagram of the school finance model will be extended to examine where and how special education enters the educational finance system. Figure 3 illustrates this process, showing the additional special education stages and relationships with darker lines.

The driving force behind the special education finance subsystem is the nature of the handicapped student population and their different educational needs. There are a variety of handicapping conditions usually served by special education. For example, P.L. 94-142 defines handicapped children as "mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, orthopedically impaired or other health impaired children, or children with specific learning disabilities who by reason thereof require special education and related services."[20] The numbers of children vary greatly by type of

FIGURE 3

INTRODUCTION OF SPECIAL EDUCATION INTO
THE EDUCATIONAL FINANCE MODEL



handicap with national estimates ranging from 1.8 million speech impaired students and 1.5 million students with specific learning disabilities to 41 thousand visually impaired students and 38 thousand deaf students.[21] The severity of the handicapping condition both across different categories and within a given category can differ significantly, and often the severity, as much as the particular handicapping condition, will govern the special education program which the student receives. Further, the distribution of the numbers and types of handicapped children is not uniform across school districts. There tend to be greater concentrations of children diagnosed as handicapped in urban areas. Additionally, districts which are known to have excellent special education programs can exert a magnet effect attracting parents with handicapped children to relocate in order to enroll their children in the program.[22]

P.L. 94-142 established a new requirement for school districts--an individualized educational program (IEP) for each handicapped child. The IEP, designed to be developed in accordance with the student's educational needs, requires the specification of the student's present performance, annual instructional objectives for the student, the special education programs and related services to be provided, the timing of these programs and services, and evaluation criteria for instructional objectives.[23] Conceptually, the educational programs and services which a district would provide would be the summation of those specified in the IEPs of the handicapped students which it enrolls. In Figure 3 this is shown as the path from handicapped students to IEPs to educational programs. However, there are indications (and complaints) that the programs which are already available in the district influence, or even dictate, the recommended placements in the IEPs.[24]

There are a great variety of educational programs and services which are offered to handicapped students.[25] The possible options range from a regular classroom with only minimal special education support for a handicapped student and/or the regular teacher, to a resource room for 1-2 hours per day with a special education teacher, to a part-time or full-time separate special education classroom in regular school facilities, to a day school or residential school programs in separate facilities, to vocational programs, such as work-study programs or sheltered workshops, and all of these instructional program alternatives may include related services such as identification and assessment of handicapping conditions, psychological services, physical and occupational therapy, or specialized transportation.[26]

For handicapped students, the concept of equity in educational programs means, first, that the programs and services which they receive are appropriate to their educational needs. By definition, these will be different, to some extent, from those provided to nonhandicapped students. Equity in this context means different programs and the focus is on determining what is "appropriate" for a particular handicapped student. Secondly, equity in educational programs means that the programs and services provided to handicapped students with similar needs in different districts are equivalent. This is not to say that they have to be identical since special educators often differ over the preferred treatments for various types and severities of handicapped students. However, from a conceptual standpoint, differences in programs and services should be based on assessment of students' needs and professional judgements, not on availability of programs and services, nor on their costs or the fiscal ability of a district to provide them.

As indicated in the diagram by the arrow from educational programs to educational expenditures, the programs which are required will influence

the necessary educational expenditures. Programs for handicapped students cost more than those for nonhandicapped students for a variety of reasons: additional services for mildly handicapped students placed in regular education classrooms; special classes for handicapped with smaller class sizes; related and support services; multiple special education services for some handicapped students; residential programs with housing, feeding, vocational, recreational services included; identification, assessment and educational planning requirements; other newly mandated procedures, such as due process; additional staff support and training; and a greater age span of students.[27] Thus, at the educational expenditures stage, equity for handicapped students requires differential expenditure levels. Unequal dollars per student are required to produce equal educational opportunities. The levels of expenditures to provide the necessary programs for handicapped students can be derived through the path starting at handicapped students needs and progressing through the IEPs and appropriate educational programs. This program path analysis yields an "ideal" expenditure level in which the estimated costs of special education would be based solely on programmatic decisions without the constraints of available resources.

The linkage between educational programs and educational outcomes in special education is analogous to that for regular education. The activities in the programs develop in the students a set of skills, behaviors, and attitudes believed to be of value in their subsequent lives and careers. For certain handicapped students, the desired educational outcomes may be essentially the same as non-handicapped students (e.g., acceptable scores on various achievement tests, vocational skills, social and citizenship values). For other and more severely handicapped students, the educational objectives may include self-help skills (e.g., eating, dressing, personal

hygiene), community orientation (e.g., use of public transportation, attendance at public events), vocational skills and attitudes aimed at increasing self-sufficiency and/or reducing dependence, and improved self-image. Equity at this stage again does not necessarily mean equal outcomes or equal life chances for all children, including the handicapped. Rather it means educational outcomes which are appropriate to the child's situation. However, the mere fact that a student has been labeled handicapped does not necessarily imply different (and lower) expected educational outcomes. With appropriate educational programs and related services, many mildly handicapped students could be expected to achieve similar educational outcomes as their non-handicapped peers.

Now consider the revenue path to educational expenditures for handicapped students also shown on Figure 3. State and federal educational finance systems provide separate revenues specifically earmarked for special education. A variety of funding formulas are used in special education to transfer these categorical funds to the district level.[28] However, in each case, the magnitude of the categorical funds is ultimately tied to the population of handicapped students to be served. The purpose of these categorical revenues is to assist the local school districts in meeting the higher costs of educating handicapped students. The categorical funds are essentially an adjustment to the overall educational finance scheme to relate some of the state and federal funds to student need. In addition, general (non-categorical) district and state funds are used by districts when categorical aid is not sufficient to cover all of the additional costs. Consequently, the educational expenditures for special education are supported from categorical revenues from higher governmental levels, by local funds generated from the districts' fiscal capacity, and possibly by state general aid funds.

The relationship between educational expenditures and educational programs for special education works in both directions. Not only do the necessary programs affect the required expenditures, but the reverse is also true. The funds available for special education expenditures (i.e., the possible expenditure level) also influence the programs and services which are or can be offered. In addition to the presence or absence of a program or service (e.g., adding another special classroom for mentally retarded students, providing vocational counseling for high school aged handicapped students), the availability of funding can also affect the makeup of the programs that are offered (e.g., special classes with or without aides, speech therapy once vs. three times per week, lower or higher student/teacher ratios). The availability or configuration of a particular program or service can also influence the IEPs if the programs specified as "appropriate" are limited to only those the district is currently providing. Note that this is completely contrary to the purpose of and regulations for the IEP.

For special education, the revenue path and the program path meet at the junction between educational expenditures and educational programs. It is likely that the results of each path will not be in balance, that the ideal expenditure level required to provide all of the appropriate programs and services will be different from the revenues available to support these expenditures. As a result, some compromise and iteration will be required at the district level to balance the necessary programs with the available funds. This art of the possible is generally an integral part of the budgeting, planning, student evaluation, and programming processes. It is constrained, on one hand, by fiscal regulations and availability of funds and on the other by the IEP, state program standards,

due process procedures, and increasing parental involvement.

Of interest to this examination is the consideration of how the large influx of categorical funds affects educational equity for handicapped students. How do the additional state and federal special education monies influence the district's balancing of program needs and available dollars? If the categorical funds received by districts are essentially equal to the additional costs of educating handicapped students, then special education funding is effectively removed from the influence of the districts' fiscal capacities. Educational expenditures for special education are paid for by categorical revenues provided by state and federal sources. In this case, special education finance operates like a self-contained subsystem. The local portion of educational expenditures for handicapped students may be influenced by district fiscal capacity, but these revenues are either not used for special education programs (e.g., they support the costs of the regular program for mildly handicapped students needing only supplemental programs and/or services from special education) or contribute a relatively minor proportion of the total special education program costs. In any event, if the additional costs of special education are more or less balanced with the categorical revenues received for these programs, then inequities in districts' fiscal capacity should not greatly affect the expenditures or programs for handicapped students. However, it is important that this balance not be artificially achieved through restrictions in the IEPs and the programs specified for the appropriate education of handicapped students.

Unfortunately, the more common case is that the categorical revenues received from outside sources are not sufficient to meet all of the special education costs which would result from the IEP and educational program

specification for handicapped students. In this situation, the local district must decide how to make up the difference. There are essentially two choices: to utilize local funds to support the additional special education costs or to reduce the costs through restrictions on eligible students and/or program eliminations or modifications. This results in an inequitable situation which favors handicapped students who reside in districts which: 1) have a high priority for educational programs for the handicapped; 2) have taxpayers willing to support special education (and other) programs through higher tax rates; or 3) have a greater fiscal capacity on which to draw. The outcome is to place special education in the same dependent position as regular education with regard to district fiscal capacity. In terms of the diagram, the connection between district fiscal capacity and educational expenditures for special education now plays an important role and the categorical revenue input is no longer the dominant factor in special educational expenditures.

If the state's education finance system incorporates equalization into the distribution of general state aid to education, then at least the portion of special education funding provided by local funds and general state aid has been adjusted to eliminate or reduce the effect of district fiscal capacity. An additional modification would be to distribute the categorical funds on an equalized basis. This change might not affect the total amount of categorical funds for special education, but it would redistribute the funds with the poorer districts receiving relatively more and the wealthier districts relatively less. If the categorical funds are sufficient to match all of the additional costs of educating handicapped children, then this adjustment would have little effect. However, when categorical revenues are insufficient and districts have to use their own funds to make up the

difference, distribution of categorical aid on an equalized basis would reduce the inequities described above.

The magnitude of categorical revenues has been treated as a direct function of the number, and perhaps type, of handicapped students in a district. The diagram, however, raises a question about the possible effect of district fiscal capacity on categorical revenues. This is an issue which should be investigated empirically since there is no necessary linkage in the model between the two elements. The general question is whether there is a relationship between district fiscal capacity and the success of districts in obtaining categorical funds. If such a relationship exists and it favors wealthy districts, it could jeopardize equity of both educational expenditures and educational programs for special education. Both the causes and effects of such a relationship could be investigated with such research questions as: Are wealthier districts able to maintain a larger support and administrative structure for special education? Does this enable them to locate and qualify proportionally greater numbers of handicapped students for categorical funding? Are wealthier districts able to organize delivery of services more efficiently? Are wealthier districts better able to obtain categorical revenues from other sources (e.g., early childhood, health, rehabilitation, social security) to maximize the total revenues available for serving handicapped students?

There is also an important indirect relationship in the model which should be considered, namely the connection between district fiscal capacity and the number of handicapped students in a district. This is another empirical question which can be investigated. Is there a relationship between the wealth (property or income) of a district and the number and types of handicapped students found in the district? This appears to be

the case in urban school districts where greater concentrations of handicapped students have been reported.[29] Further, urban districts often face higher prices for teachers and other resources as well as greater competition from other services for the available tax revenues. The net effect for urban districts can be to combine greater expenditure requirements (more handicapped students, higher resource prices) with restrained fiscal capacity for education. This combination may impede the attainment of equity, at whatever stage, for handicapped students.

IV. CONCLUSIONS

Special education finance has been viewed as largely a separate funding system related to the needs of handicapped and financed largely by categorical monies from state and federal sources. Federal funds and most state funds for special education are unequalized and provided to districts on the basis of the numbers and educational needs of handicapped students rather than with any consideration of district wealth.

Different yardsticks for equity have been used for school finance reform efforts than for special education funding. Equity for handicapped students means unequal expenditures, different and additional educational programs, and a wider range of educational outcomes. The focus in special education is on the differences needed to provide an appropriate education for handicapped students. The emphasis in school finance reform is on the compensation for differences in district wealth and reduction in differences in educational expenditures, and to a much lesser extent on reduction in the variances in educational programs and outcomes.

If categorical revenues for special education are sufficent to support the additional costs of educating handicapped students, then it appears

that district fiscal capacity has a minimal effect on educational equity (at whatever stage) for these students. However, even in this situation, the availability of regular education programs and services for handicapped students can be related to the overall wealth, expenditure level, and provision of programs of the district. If categorical revenues are not sufficient to support all of the additional costs for special education, then the districts must bring their program-derived cost requirements in balance with their available revenues. In this situation, the wealth of the district and its ability or willingness to provide local support for special education will likely affect the programs and services which are provided to its handicapped students. When and if this occurs, the presumed separateness of the special education finance system is transgressed and the education of handicapped students becomes at least partially dependent upon the fiscal capacity of the district.

In the absence of significantly increased future funding for special education to support all of the excess costs, two partial solutions may reduce inequities for handicapped students. First, general state educational funding systems could be modified to account more explicitly for student need. This would mean basing the calculation of categorical revenue requirements on the costs of appropriate educational programs rather than on historical (and often arbitrary) funding levels. Second, it would be possible to distribute the existing special education categorical revenues on an equalized basis. This procedure would recognize the effect of district wealth in the entire special education funding system. While it would not necessarily provide additional or sufficient state or federal funds for meeting all of the educational needs of handicapped students, it would rearrange the shortages more in accordance with the district's abilities to meet them.

NOTES

1. John Augenblick, School Finance Reform in the States: 1979, Report No. F79-4 (Denver, CO: Education Commission of the States, 1979), p. 3, 27.

2. Walter Garms, James Guthrie, and Lawrence Pierce, School Finance: The Economics and Politics of Public Education (Englewood Cliffs, N.J.: Prentice-Hall, 1978), pp. 406-08, discusses the case for municipal overburden.

3. Norton Grubb, "Cost of Education Indices: Issues and Methods," in School Finance Reform: A Legislators Handbook, eds. John Callahan and William Wilken (Washington, D.C.: National Conference of State Legislators, 1976), p. 91.

4. Jay Chambers, "The Development of a Cost of Education Index: Some Empirical Estimates and Policy Issues," Journal of Education Finance 5 (Winter 1980): 262-81.

5. Jay Chambers and William Hartman, "A Cost-Based Approach to the Funding of Educational Programs: An Application to Special Education" (Stanford, CA: Institute for Research on Educational Finance and Governance, Stanford University, 1980).

6. Allan Odden, Robert Berne, and Leanna Stiefel, Equity in School Finance, Report No. F79-9 (Denver, CO: Education Commission of the States, 1979), p. 9.

7. Odden, Berne, and Stiefel, Equity in School Finance, pp. 7-16 provides a description of the child and taxpayer equity concepts in school finance.

8. John Coons, William Clune, and Stephan Sugarman, Private Wealth and Public Education (Cambridge: The Belknap Press of Harvard University Press, 1970).

9. Stephen Barro, "Alternative Post-Serrano Systems and Their Expenditure Implications," in School Finance in Transition, ed. John Pincus (Cambridge: Ballinger Publishing Co., 1974), p. 32. This difference is not exactly the same because ex post fiscal neutrality does not require equal expenditures, but rather that expenditure variations are not related to district fiscal capacity.

10. Intradistrict variations in per pupil expenditures still persist. They were the basis for the Hobson vs. Hansen suit in Washington, D.C. and were found in J.E. Hight, "Full State Funding and the Distribution of Educational Resources in Hawaii," National Tax Journal 27 (March 1974): 1-28.

11. See Stephan Carroll, The Search for Equity in School Finance: Results from Five States, Report R-2348-NIE (Santa Monica, CA: Rand Corp., 1979), pp. 75-90 for a more detailed description of Florida's educational finance system.

12. Augenblick, School Finance Reform in the States: 1979, pp. 1-2.

13. Garms, Guthrie, and Pierce, School Finance, p. 188.

14. Recently some have argued that the property tax is actually progressive. See Richard Netzer, Economics of the Property Tax (Washington, D.C.: Brookings Institute, 1966) for the traditional view and Henry Aaron, Who Pays the Property Tax (Washington, D.C.: Brookings Institute, 1975) and Mason Goffrey, "The Property Tax vs a Progressive Tax," Proceedings of the National Tax Association 64 (1971): 408-26 for the "revisionist" position.

15. Augenblick, School Finance Reform in the States: 1979, p. 3.

16. For example, see Robinson v. Cahill, 62 N.J. 473, 303 A. 2d 273, 277, 295.

17. Arthur Wise, "Minimum Educational Adequacy: Beyond School Finance Reform," Journal of Education Finance 1 (Spring 1976): 468-83.

18. Exceptions to this exclusion for special education have been: Education Finance Center, Special Education Finance: The Interaction Between State and Federal Support Systems, Report No. F79-3 (Denver: Education Commission of the States, 1979); and Marjorie Peary, Samuel Price, and Alan Hickrod, "Wealth Neutrality and Conditional Wealth Neutrality as Goals of Special Education Finance in Illinois" (Normal, IL: Center for the Study of Educational Finance, Illinois State University, 1980).

19. Data for 1972-73 and 1976-77 come from William Hartman, Estimating the Costs of Educating Handicapped Children: A Resource-Cost Model Approach (Washington, D.C.: U.S. Office of Education, Bureau of Education for the Handicapped, 1979), p. 96; and the 1980-81 estimates are from William Hartman, "Projecting Special Education Costs" (Stanford, CA: Institute for Research on Educational Finance and Governance, Stanford University, 1980), p. 49.

20. Subcommittee on the Handicapped of the Committee on Labor and Public Welfare, U.S. Senate, Education of the Handicapped Act as Amended Through December 31, 1975, Public Law 94-142, 94th Congress, 2nd Session, Committee Print, 1976, p. 2.

21. U.S. Department of Health, Education, and Welfare, Progress Toward a Free Appropriate Public Education: A Report to Congress on the Implementation of Public Law P.L. 94-142, The Education for All Handicapped Children Act, HEW Publication No. (OE) 79-05003 (Washington, D.C.: U.S. Department of Health, Education, and Welfare, 1979), pp. 159-64.

22. R.A. Henderson, "Financing Special Education for Exceptional Pupils," in Financing Education Programs for Handicapped Children, Report No. 50, ed. Nacy Cain (Denver: Education Commission of the States, 1974).

23. U.S. Department of Health, Education, and Welfare, "Education of Handicapped Children," Federal Register 42, No. 163, 23 August 1977, p. 42491.

24. Jane David and David Greene, "Organizational Barriers to Full Implementation of P.L. 94-142" (Stanford, CA: Institute for Research on Educational Finance and Governance, 1980), p. 13.

25. For example, see: Lloyd Dunn, ed., Exceptional Children in Schools: Special Education in Transition, 2nd ed. (New York: Holt, Rinehart, and Winston, 1973), chap. 1; Maynard Reynolds, "A Framework for Considering Some Issues in Special Education," Exceptional Children 28 (March 1962): 367-70; and Evelyn Deno, "Special Education as Developmental Capital," Exceptional Children 37 (November 1970): 221-52.

26. U.S. Department of Health, Education, and Welfare, "Education of Exceptional Children," p. 42479.

27. William Hartman, "Policy Effects of Special Education Funding Formulas," Journal of Education Finance 6 (Winter 1981).

28. Ibid., for a description of the funding formulas used in special education.

29. Education Finance Center, Special Education Finance, p. 44.